

**STANLEY**

**No.7**

# SCREWDRIVERS

## 7 How to choose a Screwdriver

### WHICH HANDLE?

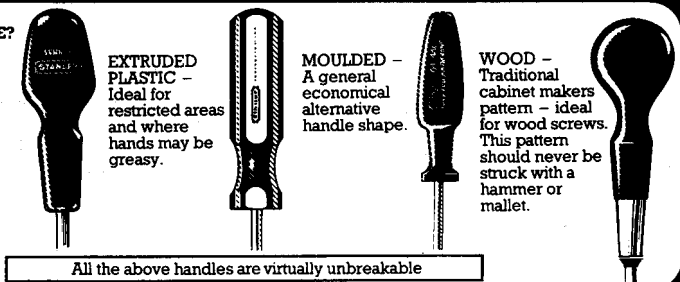
**MOULDED PLASTIC** – Ideal for woodscrews and high torque applications.

**EXTRUDED PLASTIC** – Ideal for restricted areas and where hands may be greasy.

**MOULDED** – A general economical alternative handle shape.

**WOOD** – Traditional cabinet makers pattern – ideal for wood screws. This pattern should never be struck with a hammer or mallet.

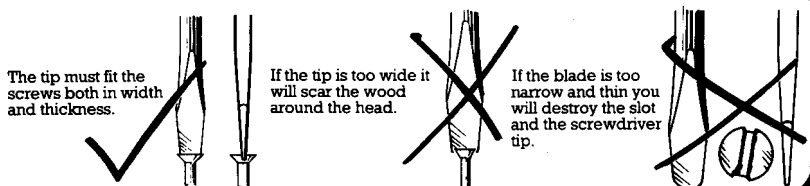
NO MATTER WHAT THE JOB THERE'S A STANLEY HANDLE SHAPE TO SUIT EVERYONE!



All the above handles are virtually unbreakable

### WHAT LENGTH BLADE TO CHOOSE?

Use the longest screwdriver convenient for the work. More power can be applied to a long screwdriver than a short one, usually because the longer screwdriver has a larger handle.



### WHICH PATTERN OR TIP TO USE?

#### FLARED

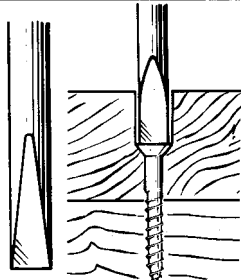
Use a flared tip for all normal and heavy duty work.



#### PARALLEL

Use for lighter work and where the screw is hidden below the surface e.g. counterbored screws (as illustrated) and contact screws in plugs, switches and electrical accessories.\*

\* N.B. Disconnect power source.



### CROSS POINT



PHILLIPS SUPADRIV POZIDRIV

Use a flared screwdriver on a Phillips screw. Use a Stanley Pozidriv/Supadriv screwdriver on the others. Each pattern comes in 4 main sizes, these are referred to as point sizes.

Screw Gauge	3 - 4	5 - 10	12 - 14	16 +
Driver Point	1	2	3	4

For every day use a No.2pt. covers most work. For small electrical work there are special 0pt. & 1pt. electronic patterns available. Supadriv and Pozidriv are regd. trade marks of O.K.N Fasteners.

### USEFUL HINTS

1. Where possible use two hands to drive a screw.
2. Use the correct length and tip size for the work.
3. Never use a screwdriver near a live wire.
4. Use an old screwdriver for prying, punching, chiselling, scoring, scraping or opening tins of paint.
5. Never expose a screwdriver to excessive heat.
6. Never use a screwdriver for stirring paint.
7. A little candle grease/soap on the thread will allow the screws to be turned easily.
8. If using brass screws – first insert a steel one of the same size – remove and replace with brass – this will prevent damage to the softer brass screw.
9. In oak, use brass screws (see point 9) steel ones will rust.
10. Use screw cups on thin materials – this will help prevent splitting.

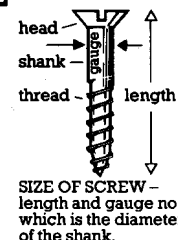
**STANLEY**

**No.8**

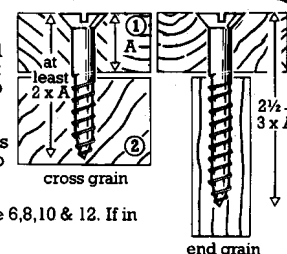
# SCREWDRIVERS

## 8 How to screw two pieces of wood together

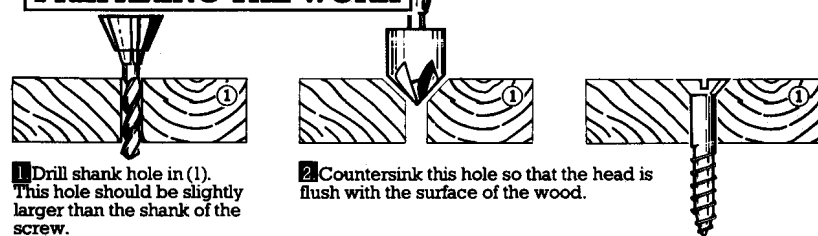
### Parts of a screw



Screw the thinner piece of wood (1) to the thicker piece (2). Select a screw length to penetrate (2) to at least as much as the thickness of (1). For a very strong job use a larger screw. Choose a thickness of screw (known as the gauge) to be appropriate for the job. The most common gauge sizes for normal use around the house are 6, 8, 10 & 12. If in doubt use an 8 or 10 gauge.

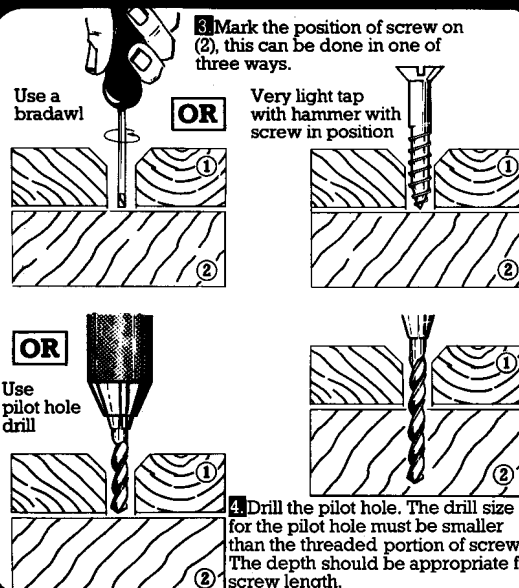


### PREPARING THE WORK



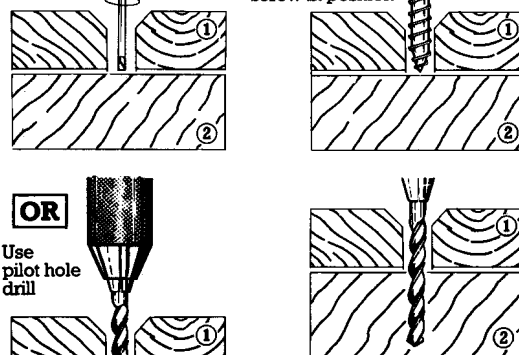
1 Drill shank hole in (1). This hole should be slightly larger than the shank of the screw.

2 Countersink this hole so that the head is flush with the surface of the wood.

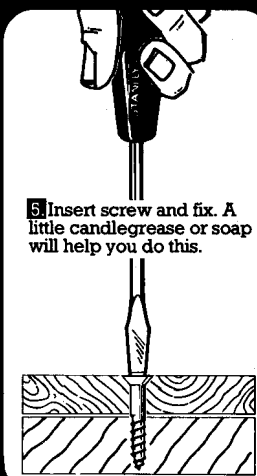


3 Mark the position of screw on (2), this can be done in one of three ways.

Use a bradawl OR Very light tap with hammer with screw in position



4 Drill the pilot hole. The drill size for the pilot hole must be smaller than the threaded portion of screw. The depth should be appropriate for screw length.



Tools you require  
Screwdriver  
Hand drill  
Twist drills  
Countersink  
Bradawl

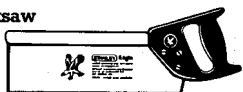
## SAWS

## 22 How to choose a Saw – Part 1

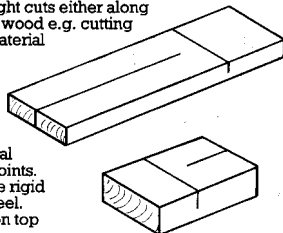
**WHAT TYPE DO YOU REQUIRE?** – This depends on the type of work you are to complete. In general terms, for straight cuts, there is a choice of a:–

**Handsaw**

Produces long straight cuts either along or across a piece of wood e.g. cutting boards and sheet material to size.

**or Backsaw**

Produces light, accurate straight cuts either along or across a piece of wood e.g. general bench work and cutting joints. The back keeps the blade rigid and may be of brass or steel. Brass is generally found on top quality saws.

**WHAT SIZE OR LENGTH?**

**BACK SAWS** – The most popular lengths are 10"/250 mm & 12"/300mm but 14"/350 mm should be chosen if using sawing aids such as a mitre box.

**HAND SAWS** – Lengths can vary between 20"/500 mm and 26"/660 mm – The choice of length will depend on the type of sawing to be completed but a 22"/550 mm is a good general purpose length.

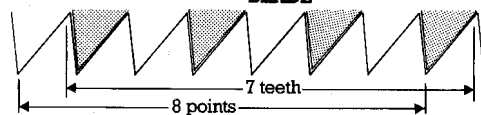
As a general rule

- a long saw has large teeth which cut quickly, ideal for rough work.
- a shorter saw has smaller teeth, ideal for lighter more precise cuts.

\* As the lengths vary so to do the number of points and teeth per inch = P.P.I. and T.P.I.

**WHAT ARE POINTS PER INCH (P.P.I.)**

– This measurement describes the number of points in an inch or 25mm. The number of P.P.I. together with the length will determine how the saw will cut. When choosing note that there is always one more point per inch (P.P.I.) than there are teeth per inch (T.P.I.) e.g. 7 teeth = 8 points.

**BLADE**

Use	Length of blade (approx)	Points per inch
Sawing down the length of a plank	26"/650 mm	4½ or 6
Sawing across the width of a plank	20"/500 mm to 24"/600 mm	7 or 8
Sawing wide panels and boards	22"/550 mm	10
Sawing accurate joints – Back saws	10"/250 mm to 14"/350 mm	15 or 13

**WHAT SHAPE OF TEETH DO YOU REQUIRE?**

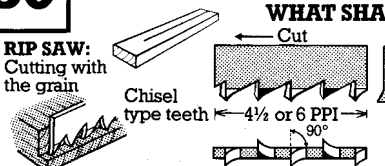
Rip, Cross Cut, Universal, Fleam (See "How to..." No.30 How to choose a Saw – Part 2)

## SAWS

## 30 How to choose a Saw – Part 2

**WHAT SHAPE OF TEETH?****RIP SAW:**

Cutting with the grain



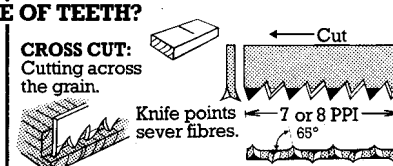
Chisel type teeth

4½ or 6 P.P.I.

90°

**CROSS CUT:**

Cutting across the grain.



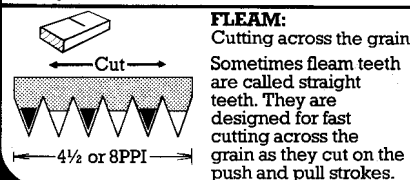
Knife points sever fibres.

7 or 8 P.P.I.

65°

**FLEAM:**

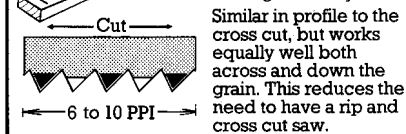
Cutting across the grain



Sometimes fleam teeth are called straight teeth. They are designed for fast cutting across the grain as they cut on the push and pull strokes.

**UNIVERSAL:**

Cutting both ways



Similar in profile to the cross cut, but works equally well both across and down the grain. This reduces the need to have a rip and cross cut saw.

**WHAT IS A HARDPOINT SAW?**

A hardpoint saw has teeth that are tip-hardened to give extra long effective cutting life. The teeth will last up to 5 times longer than normal patterns and the saw is ideal for cutting man-made composite boards, e.g. chipboard, plywood, hardboard etc. With the increase in teeth hardness for extra life, it means that a hardpoint saw cannot be conventionally re-sharpened, this type of saw is usually identified by having blackened teeth.

Normal saws have teeth which may be re-sharpened – a task best left to the expert.

**STRAIGHT OR SKEWBACK?**

**SKEWBACK** – This refers to the curved back. It reduces weight and improves the balance of the saw making it easier to control.

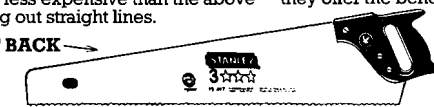
Taper Ground  
Cross section

**SKEWBACK**

Another feature often associated with a skewback is taper grinding. This is where the blade is ground on both sides to taper both from the handle to the tip and from teeth to back, this improves the clearance of the saw in the cut making it easier to use.

\* THE ABOVE FEATURES ARE NORMALLY FOUND IN TOP QUALITY SAWS LIKE THE STANLEY EAGLE HAND SAW.

**STRAIGHT BACK** – Usually less expensive than the above – they offer the benefit that the back may be used for marking out straight lines.

**STRAIGHT BACK**

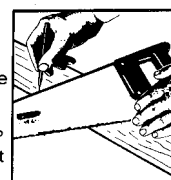
\* THE ABOVE FEATURE IS FOUND IN THE RANGE OF STANLEY HANDSAWS.

**WOODEN OR PLASTIC HANDLE?****WOOD HANDLE**

Traditionally, some people prefer the 'feel' of wood – care must be taken to prevent damage.

**PLASTIC HANDLE**

Virtually unbreakable. May have built in 90° and 45° marking out feature.

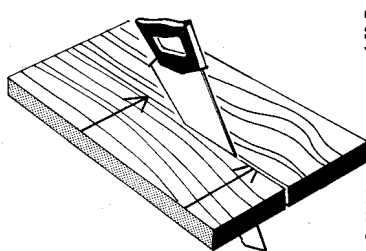


AVAILABLE IN STANLEY RANGE.

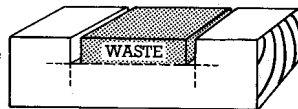
## SAWS

## 23 How to use a Saw – Part 1

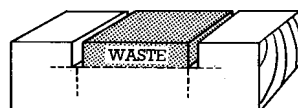
Which side of the line to cut? – Saw to the waste side



**CORRECT:**  
Saw cut is to  
waste side of line



**INCORRECT:**  
Slot will end up  
oversize

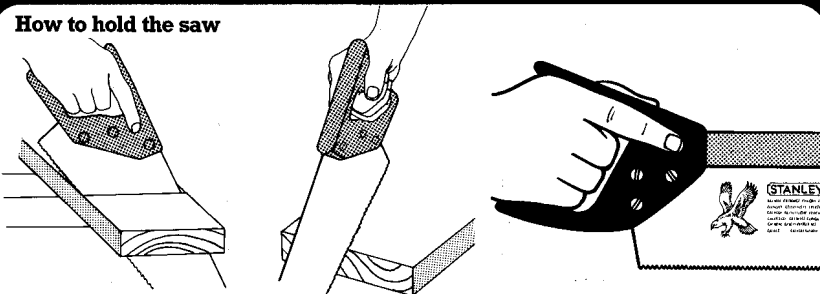


ON LINE    WRONG SIDE  
OF LINE

Mark an arrow against the scribed or pencilled line to remind yourself on which side to saw.

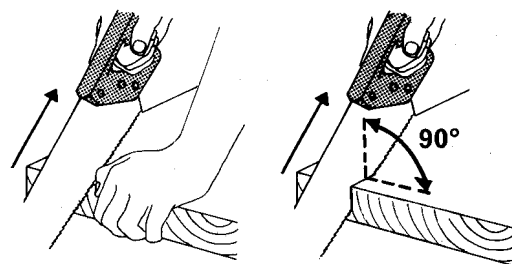
**USEFUL HINT:** Shading or marking the waste area helps to prevent mistakes.

## How to hold the saw



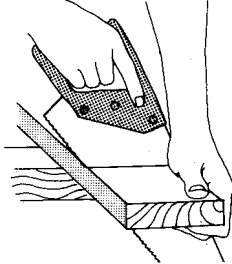
Whatever pattern of hand or back saw you use, note the position of the first finger. This helps balance and gives better control.

## How to start the cut



Start the cut by drawing the saw backwards a few times. Use your thumb as a steady gauge for this initial cut. Ensure the saw is square to the wood.

## How to end the cut



Support the waste with the other hand and make slow, careful strokes to prevent the waste breaking off, leaving a jagged edge.

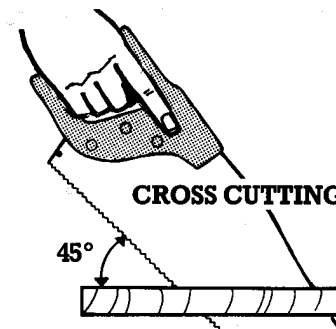
## SAWS

## 24 How to use a Saw – Part 2

About 45° is the correct angle for cross-cut sawing



Support the wood  
on sawing horses  
or safely between  
kitchen chairs

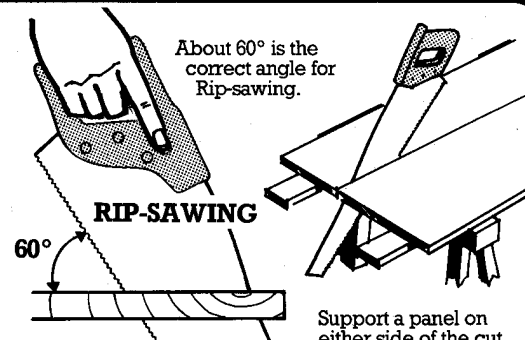


## USEFUL HINTS

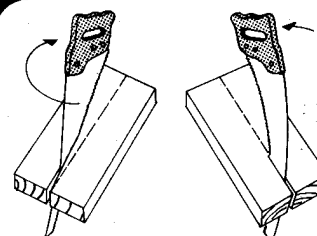
Pointing the first finger down the saw will help balance and gives better control.



About 60° is the  
correct angle for  
Rip-sawing.



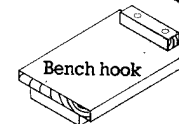
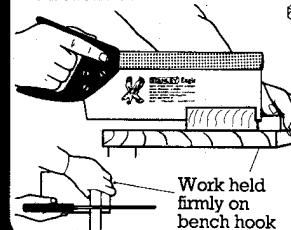
Support a panel on  
either side of the cut.



If saw leaves line, twist handle slightly and draw back to line.

If saw not square, bend it or bow the blade very carefully until the cut is corrected.

When using a back saw place the wood to be cut in a bench hook.



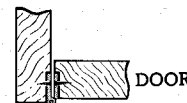
By placing end blocks in middle the bench hook can be used left & right handed

# HINGES

## 34 How to fit Hinges

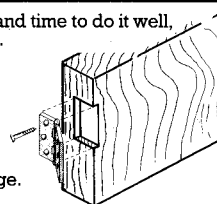
**Fitting a butt hinge.** This requires considerable skill and time to do it well, because ideally each flap of the hinge has to be recessed.

FRAME

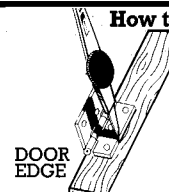


DOOR

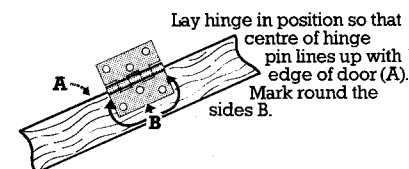
The recesses must be cut very carefully, after accurate marking and positioning of the hinge.



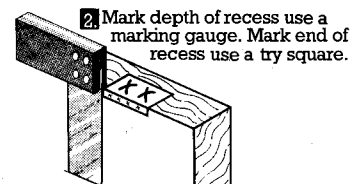
### How to cut the recess

DOOR  
EDGE

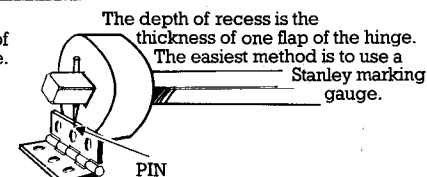
1 Mark position of hinge using a Stanley knife.



Lay hinge in position so that centre of hinge pin lines up with edge of door (A). Mark round the sides B.

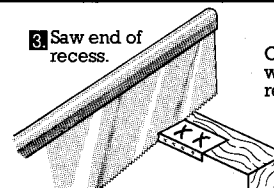


2 Mark depth of recess use a marking gauge. Mark end of recess use a try square.



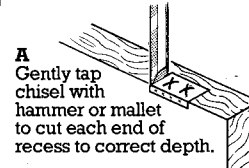
The depth of recess is the thickness of one flap of the hinge. The easiest method is to use a Stanley marking gauge.

3 Saw end of recess.

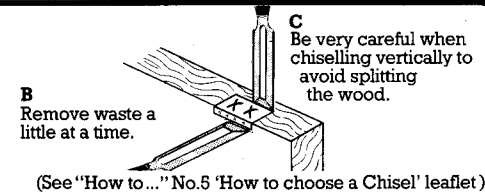


Carefully saw in the WASTE wood marked with crosses to remind you.

4 Remove waste with a chisel.



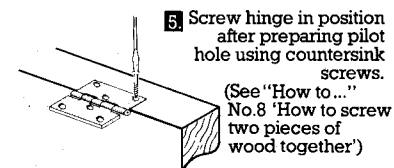
A Gently tap chisel with hammer or mallet to cut each end of recess to correct depth.



B Remove waste a little at a time.

C Be very careful when chiselling vertically to avoid splitting the wood.

(See "How to..." No.5 'How to choose a Chisel' leaflet)



5 Screw hinge in position after preparing pilot hole using countersink screws. (See "How to..." No.8 'How to screw two pieces of wood together')

**Fitting Concealed Recess & Pivot Hinges**  
Particular size drills are required for these depending on size of hinge.

**Tools required to fit a butt hinge**  
Knife - 5900 is ideal. Saw - Back Saw 15-312 or 15-322. Chisels - 5001 or 5002, various sizes to suit hinge size. Screwdriver - 5006 size to suit screws. Hammer - ST1½ or H201½. Marking gauge - 5061. Try Square 19/6".